

# Washington State Road Usage Charge Research Update

February 3, 2022

# SITUATION ASSESSMENT

- ✓ **Systems are ready:** After nearly a decade of research and development, Washington has the ability to implement a small-scale RUC program.
- ✓ **Privacy can be protected:** Offering non-GPS approaches and privacy protections in law are key. The only additional data needed to implement RUC is a periodic odometer reading.
- ✓ **RUC harmonizes transportation funding and climate policy objectives:** RUC enables us to sustain usage-based funding without continuing to rely heavily on fossil fuel consumption and emissions.
- ✓ **RUC offers savings for low-income drivers:** The lowest-income vehicle owners in Washington pay the most in gas taxes because they tend to own older, less fuel-efficient vehicles. RUC can shift the tax burden to be more equitable.
- ✓ **Further research and testing reduces costs and improves user experience:** Research completed in 2021, along with mini-pilots to be conducted in 2022, will culminate in a comprehensive roadmap for transitioning to RUC. This transition begins with enactment of a small-scale RUC program as early as 2022.

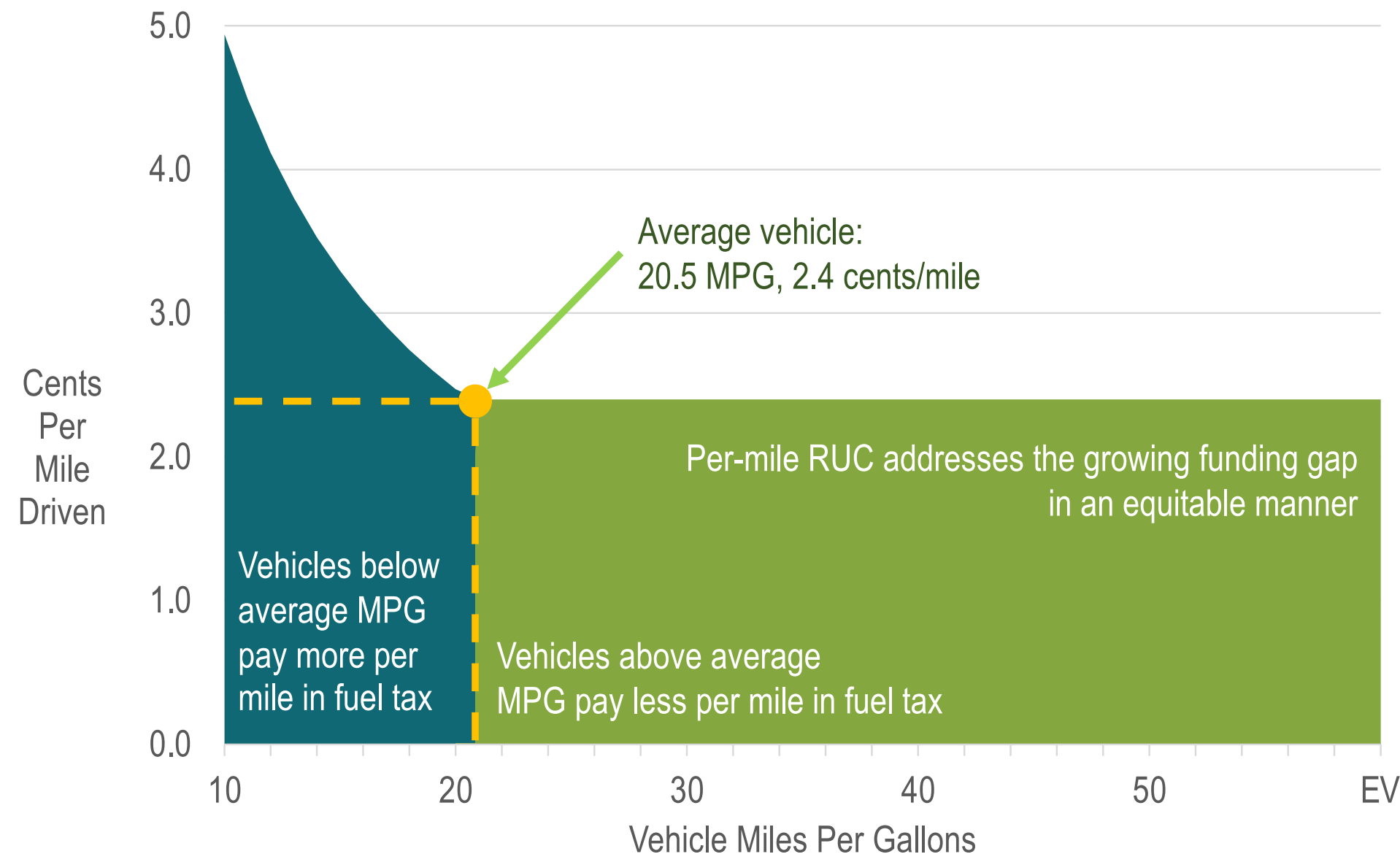


# WHAT IS THE PROBLEM?

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**Taxing fuel is no longer a reliable,  
equitable source of funding**

# TAXING GALLONS HAS FAIRNESS AND SUSTAINABILITY CHALLENGES



# WASHINGTON IS PREPARED TO BEGIN THE TRANSITION TO RUC



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**Research continues in parallel to inform  
long-term RUC policy & operations**

# RESEARCH MILESTONES TO DATE

**2012 – 2015**

## INITIAL ASSESSMENT AND CONCEPT DEVELOPMENT

- Convened Steering Committee
- Crafted Guiding Principles
- Determined feasibility
- Developed operational concepts
- Conducted business case analysis
- Designed pilot alternatives

**2016 – 2020**

## PILOT TESTING AND POLICY ISSUE ANALYSIS

- Conducted statewide pilot test with 2,000+ drivers
- Tested multiple mileage reporting methods
- Demonstrated interoperability with OR, ID, BC
- Conducted widespread public outreach
- Addressed 10+ policy issues through analysis and alternatives
- Issued recommendations

**2021 – Present**

## SYSTEM READINESS AND CONTINUED RESEARCH

- Updating financial analysis
- Assessing equity impacts and conducting statewide outreach
- Exploring service options and operational innovation
- Developing cost reduction strategies
- Designing mini-pilot tests for emerging concepts

*State funded*

*Federally funded*

# YEAR-LONG, 2000-DRIVER, STATEWIDE PILOT TESTED FIVE MILEAGE REPORTING METHODS



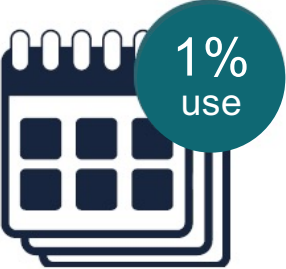
## ODOMETER READING

- Post-pay for miles reported quarterly
- Report miles either electronically or in person



## MILEMAPPER SMARTPHONE APP

- Records miles using a smartphone
- Works with all vehicles
- Navigational GPS can be turned on/off
- Available only on iPhone iOS



## MILEAGE PERMIT

- Pre-select a block of miles (1,000, 5,000, 10,000)
- Report odometer either electronically or in person every three months
- Obtain additional miles as needed to keep mileage permit valid



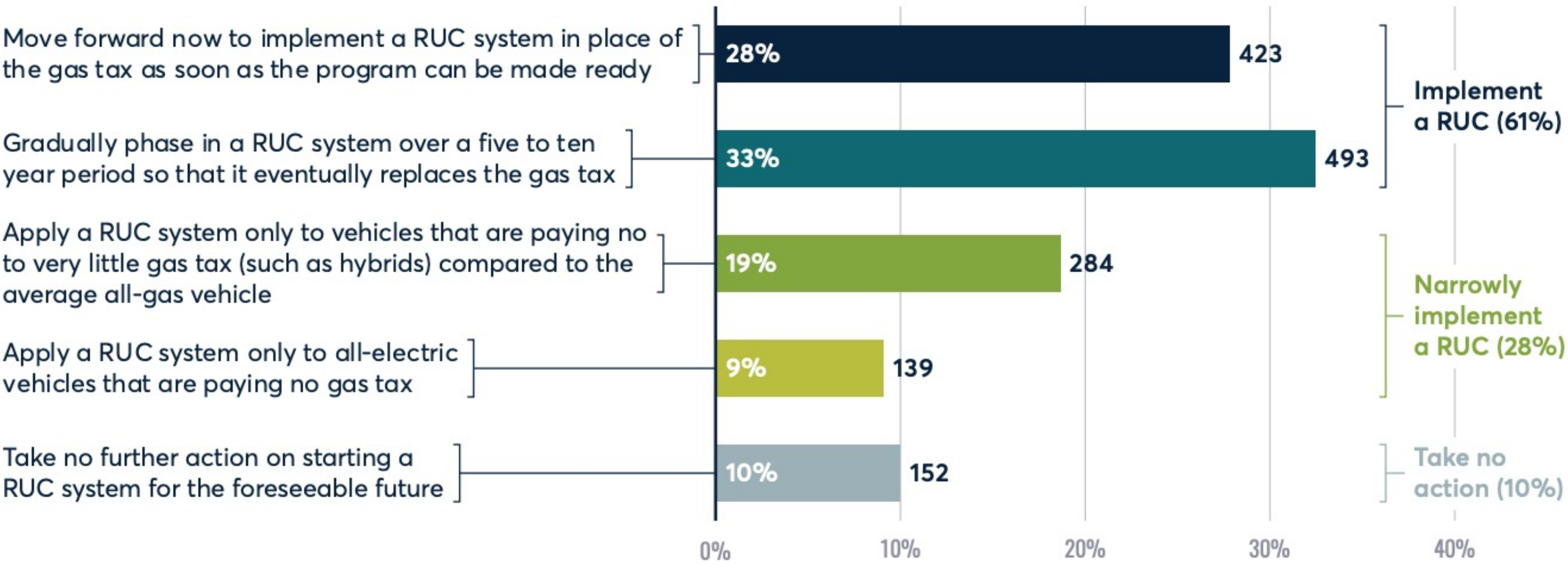
## PLUG-IN DEVICES (WITH OR WITHOUT GPS)

- Automated mileage meter with GPS and non-GPS options
- Plugs into OBD-II ports in vehicles 1996 or newer
- GPS-enabled devices automatically deduct out-of-state miles

LOW-TECH

HIGH-TECH

# PILOT PARTICIPANT ADVICE TO ELECTED OFFICIALS





# RESEARCH FINDINGS: RUC BENEFITS LOW-INCOME HOUSEHOLDS STATEWIDE



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**Like rural households, low-income households already pay more in gas taxes**

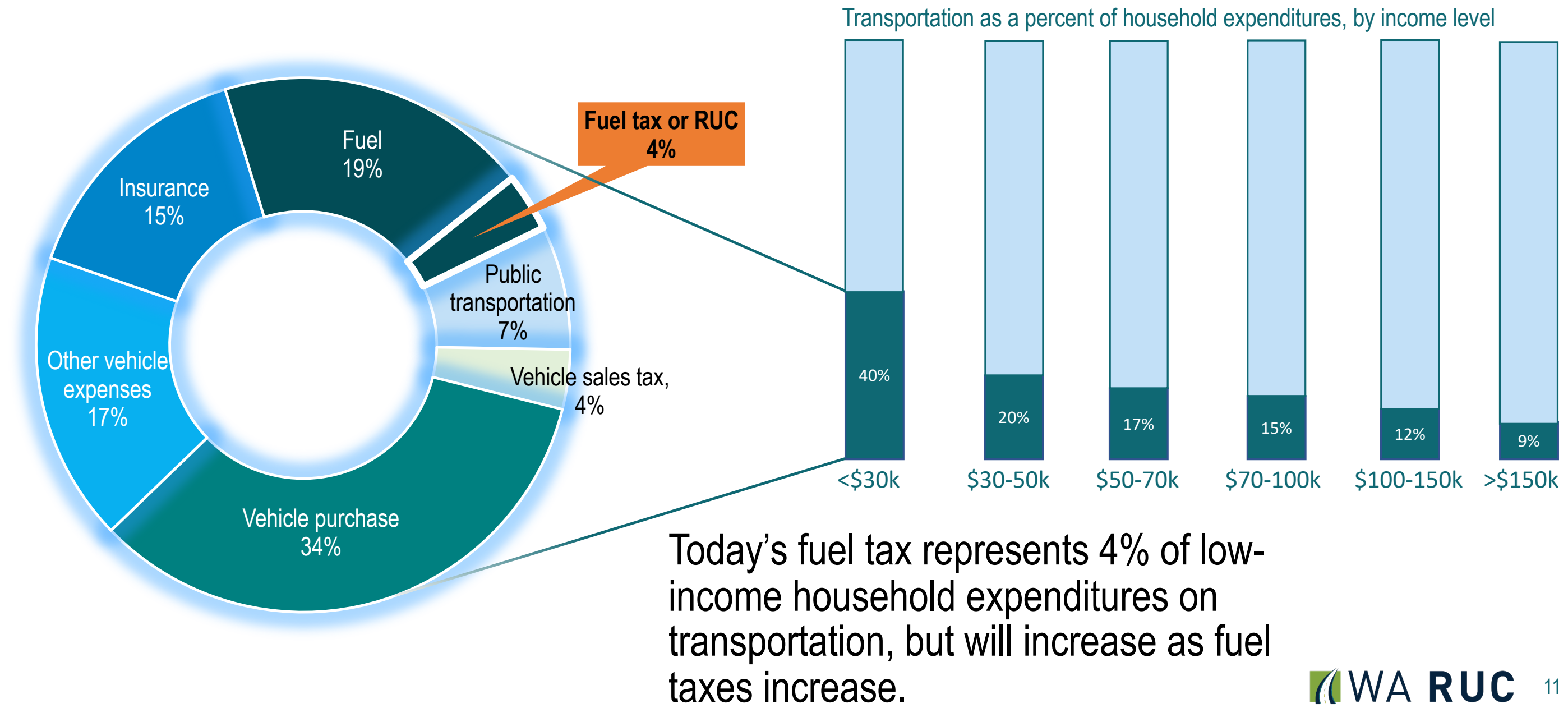
# LOW-INCOME & RURAL HOUSEHOLD FINANCIAL IMPACT ANALYSIS

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- Fuel tax currently amounts to **1.4%** of total low-income household expenditures, on average
- Under RUC, the average low-income household would save a modest amount, compared to the gas tax (<\$10 per year savings)
- Rural households would also save under a RUC compared to the gas tax, on average around \$25 per year savings



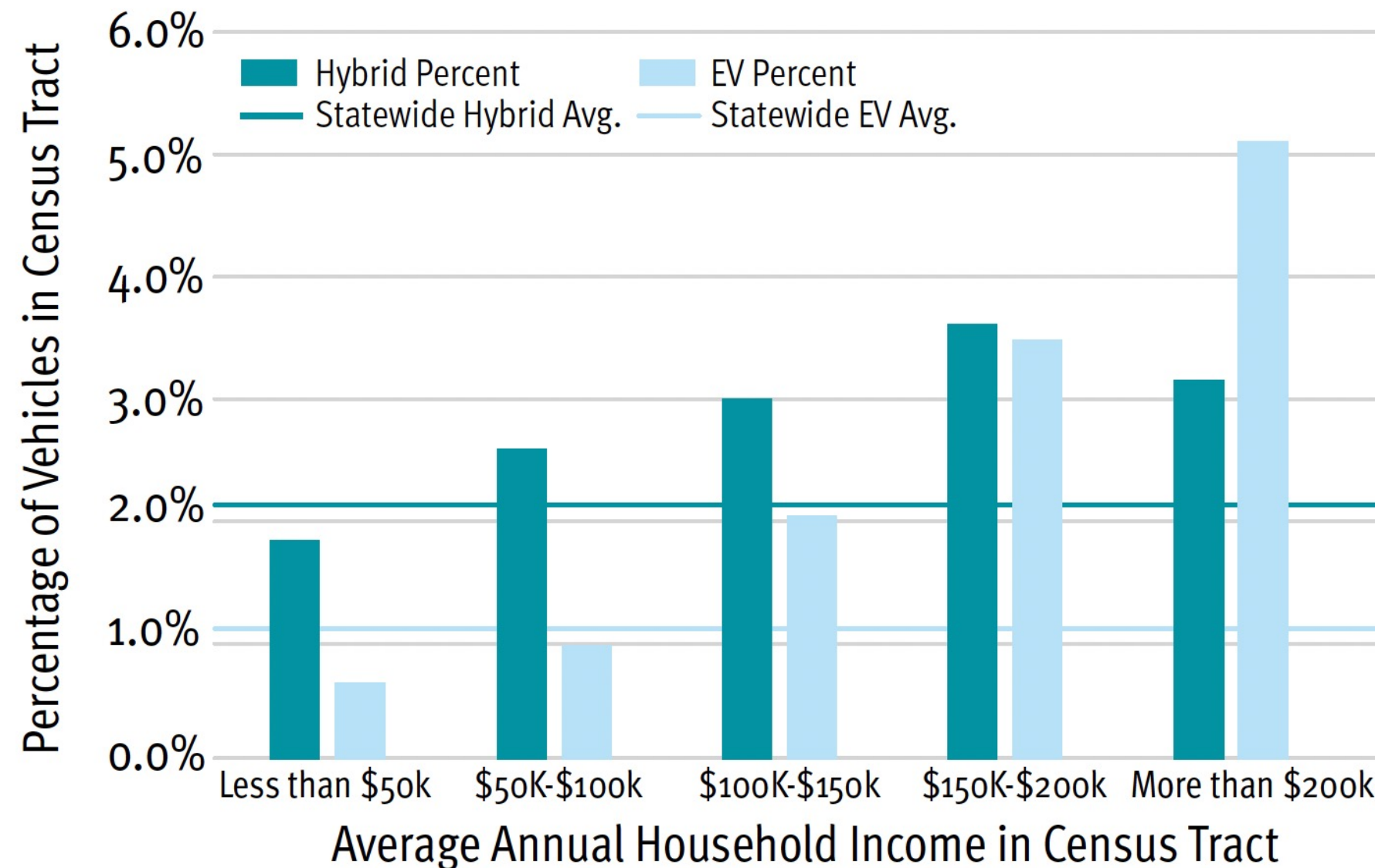
# TRANSPORTATION TAXES ARE A RELATIVELY SMALL PROPORTION OF HOUSEHOLD COSTS



# LOWER INCOME HOUSEHOLDS PAY MORE IN FUEL TAXES & WILL SEE REDUCTIONS UNDER A RUC

Census tract average household income	Census tract average MPG	Fuel tax per 10,000 miles driven	RUC per 10,000 miles driven	Change under RUC
Less than \$50k	20.0	\$247	\$240	↓ \$7
\$50-75k	20.1	\$246	\$240	↓ \$6
\$75-100k	20.5	\$241	\$240	↓ \$1
\$100-150k	21.4	\$231	\$240	↑ \$9
Over \$150k	22.6	\$219	\$240	↑ \$21

# HYBRID AND EV OWNERSHIP INCREASES WITH INCOME



# RESEARCH FINDINGS: FINANCIAL MODEL INFORMS REVENUE DECISIONS



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**Anticipating the impacts of electrification and  
other mobility trends on long-term revenue**

# FLEXIBLE APPROACH ALLOWS EXPLORATION OF ALTERNATIVE POLICIES, ECONOMIC SCENARIOS

Washington State Transportation Commission

**Welcome to WARUC Scenario Analysis Program**  
(Please select parameter values and click Apply Selections. Alternatively, click any Named Scenario)

**VMT Growth:** Low

**Fuel Type & Electrification:** EIA Reference

**Commute Shifts:** 25% Increase

**Pandemic Scenario:** Return to Normal

**E-Commerce Impact:** 25%

**RUC Transition Approach:** MPG and/or Year

**Gas Tax Scenario:** No Change

**RUC Rate (\$/mile):** 0.024

**Average Commute Length:** 10

**Apply Selections**

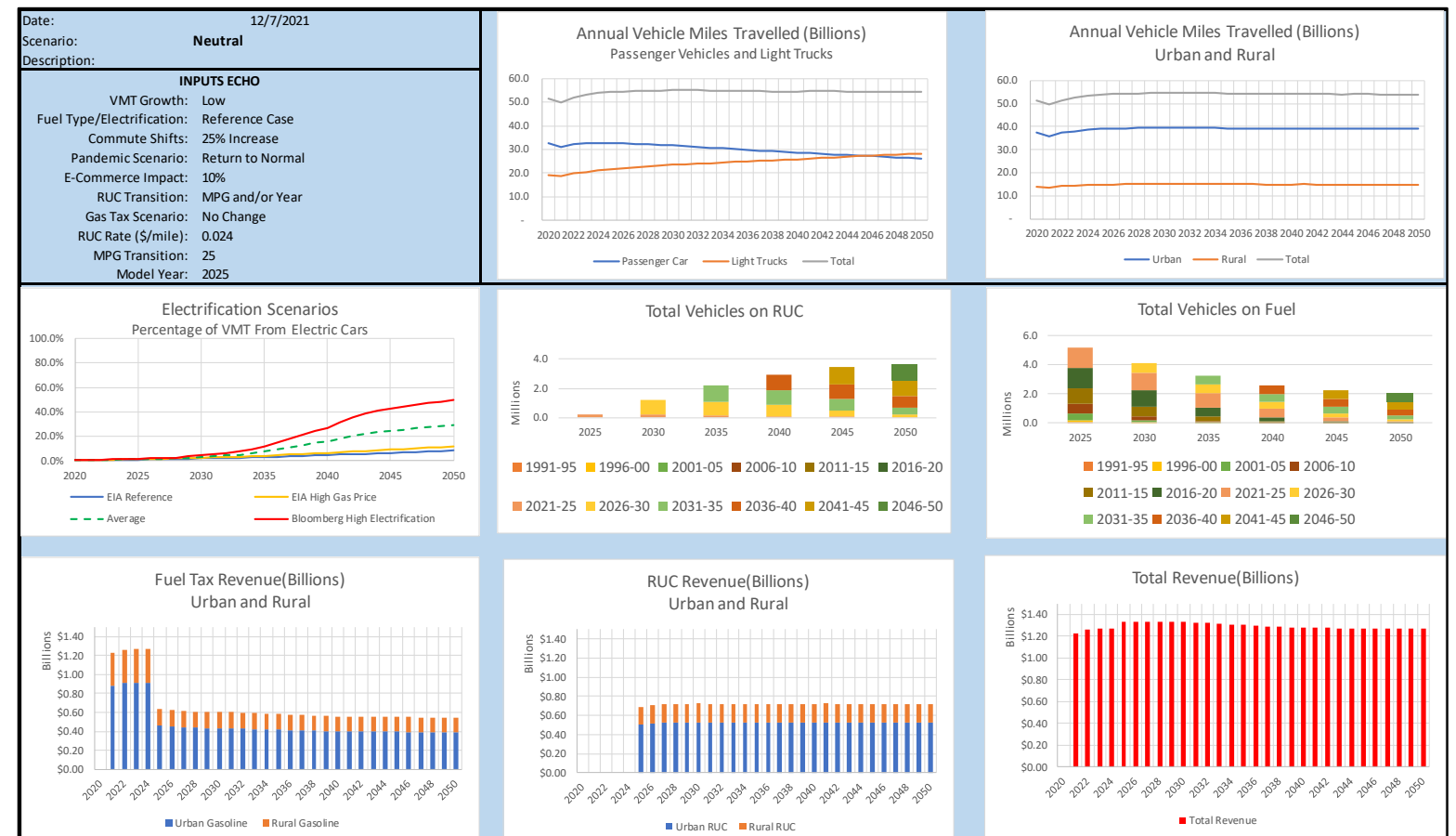
**Slide for Miles Per Gallon Transition:** 25

**Slide for Transition Year:** 2020

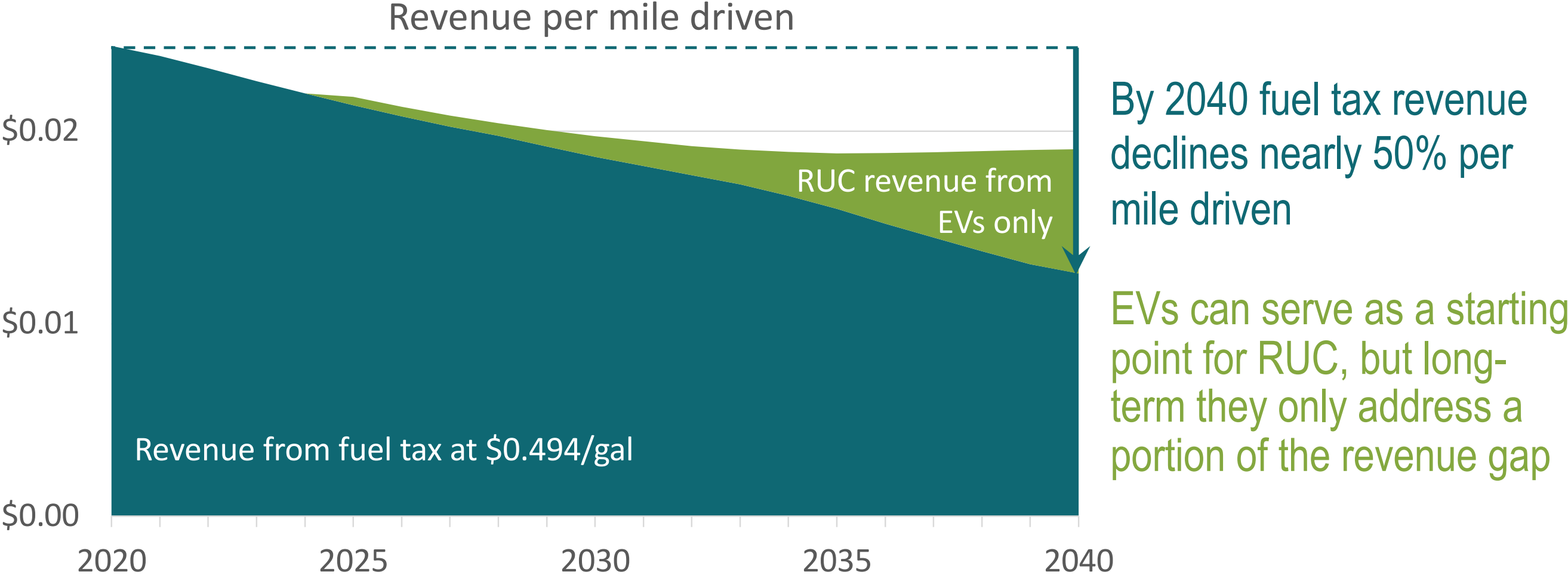
**NAMED SCENARIOS:**

Neutral Cruise Control Over Drive

Shared Drive Low Gear



# FUEL ECONOMY TRENDS UNDERMINE TRANSPORTATION REVENUE





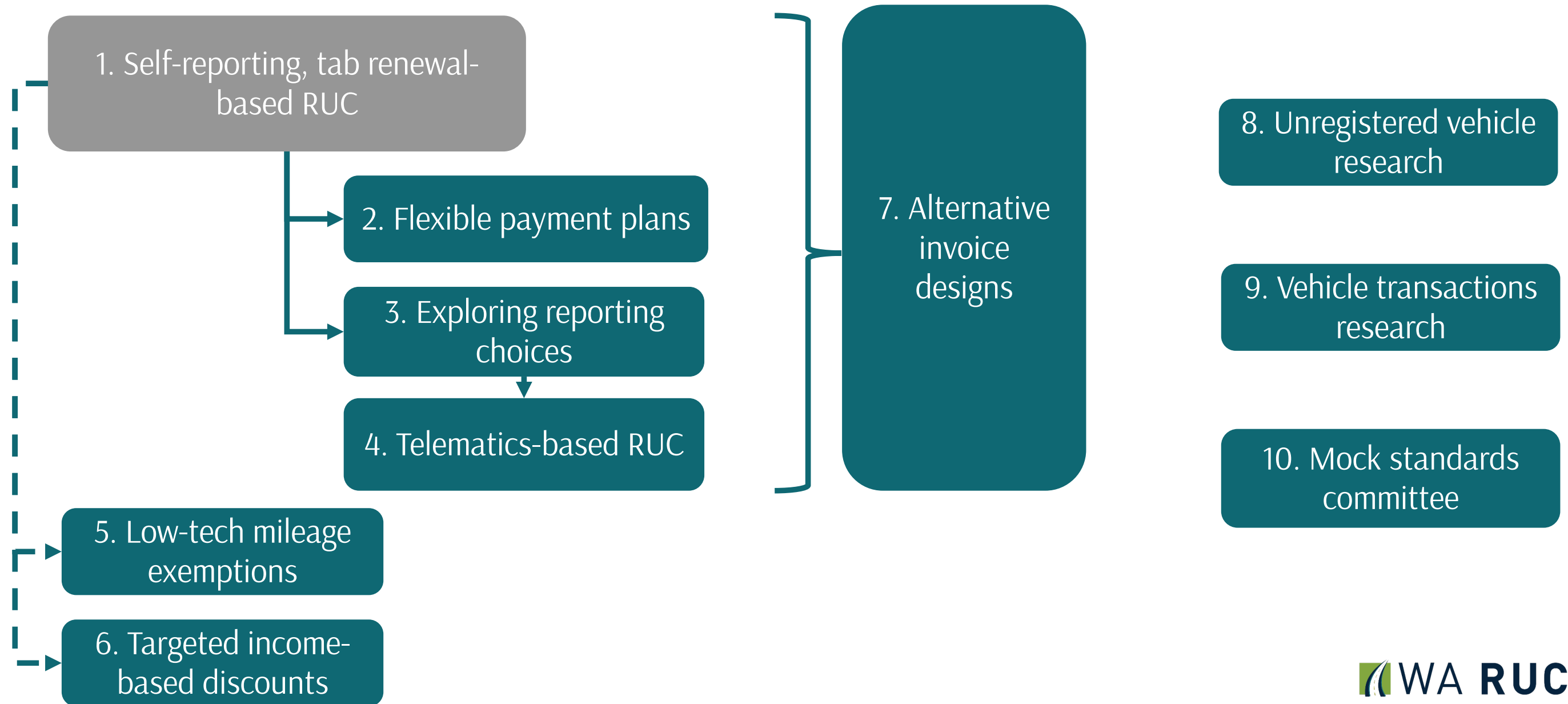
# 2022 PILOT TESTING

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**New technologies and various policies will be tested to determine viability and efficiency**

# CONCEPTS FOR 2022 MINI-PILOTS



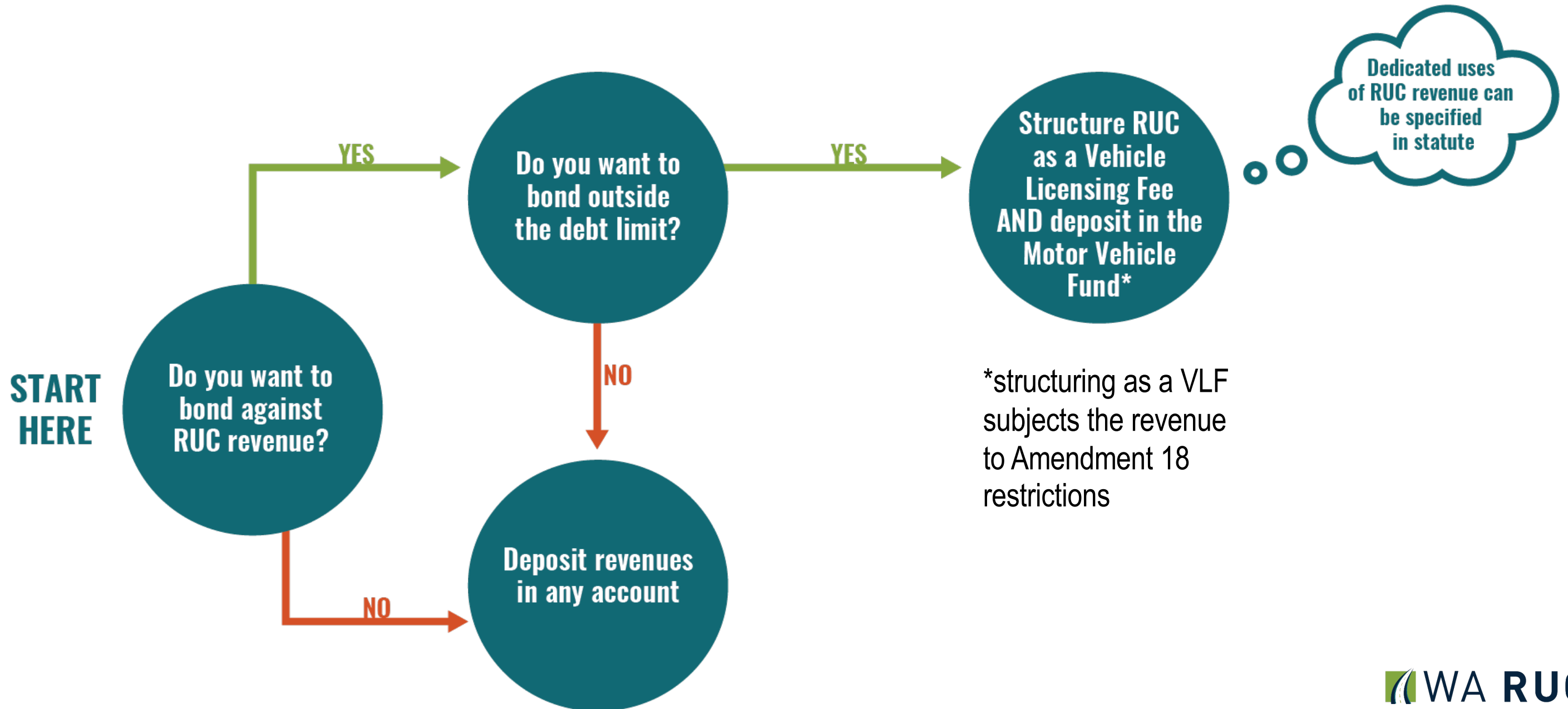
# POLICY & SYSTEM DESIGN CHOICES CAN ADDRESS MANY OPEN ISSUES



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**Research findings inform choices for how to  
advance RUC in Washington State**

# CHOICES FOR BONDING AGAINST RUC REVENUE



# CHOICES FOR PROTECTING PRIVACY THROUGH SYSTEM DESIGN AND LEGAL PROVISIONS

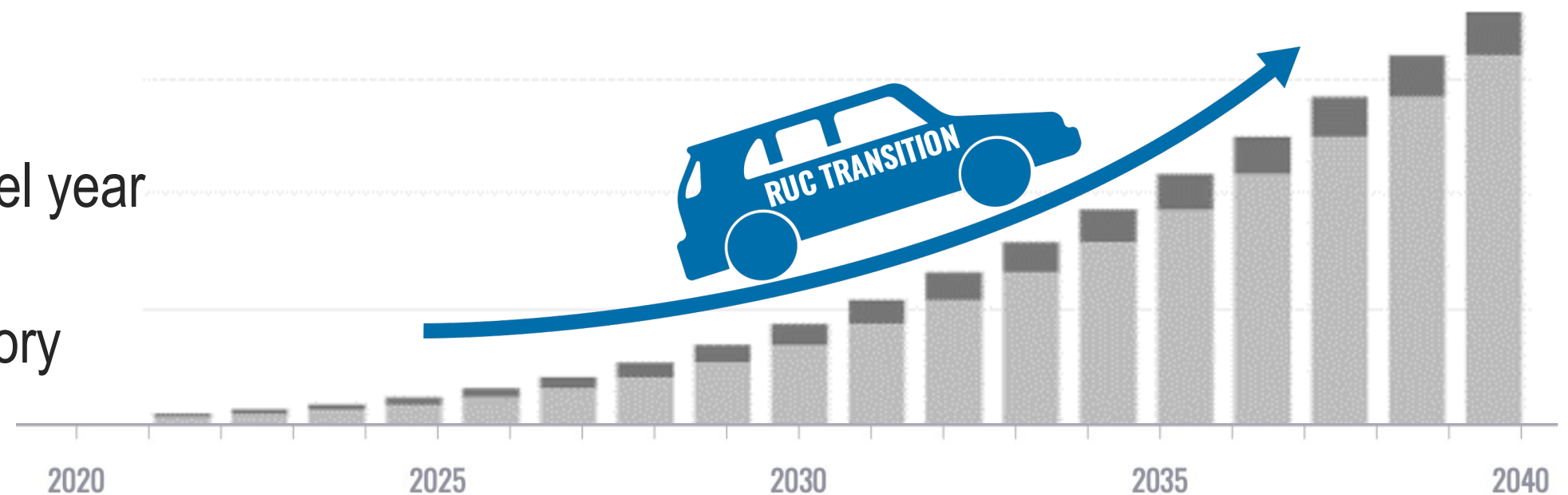
- ✓ Provide non-GPS/manual mileage reporting, such as self-reporting of odometer mileage
  - The only new piece of information needed for RUC that the Department of Licensing does not already collect is total miles driven
- ✓ Give drivers choices for how to report their miles and pay their RUC charges
  - Any mileage reporting method that uses location services is strictly for the convenience of the driver (e.g., to automatically deduct out-of-state and off-road miles)
- ✓ Include provisions to protect privacy, drawing on the Commission's model policy, in enabling legislation

**4 mileage reporting options require no location information**



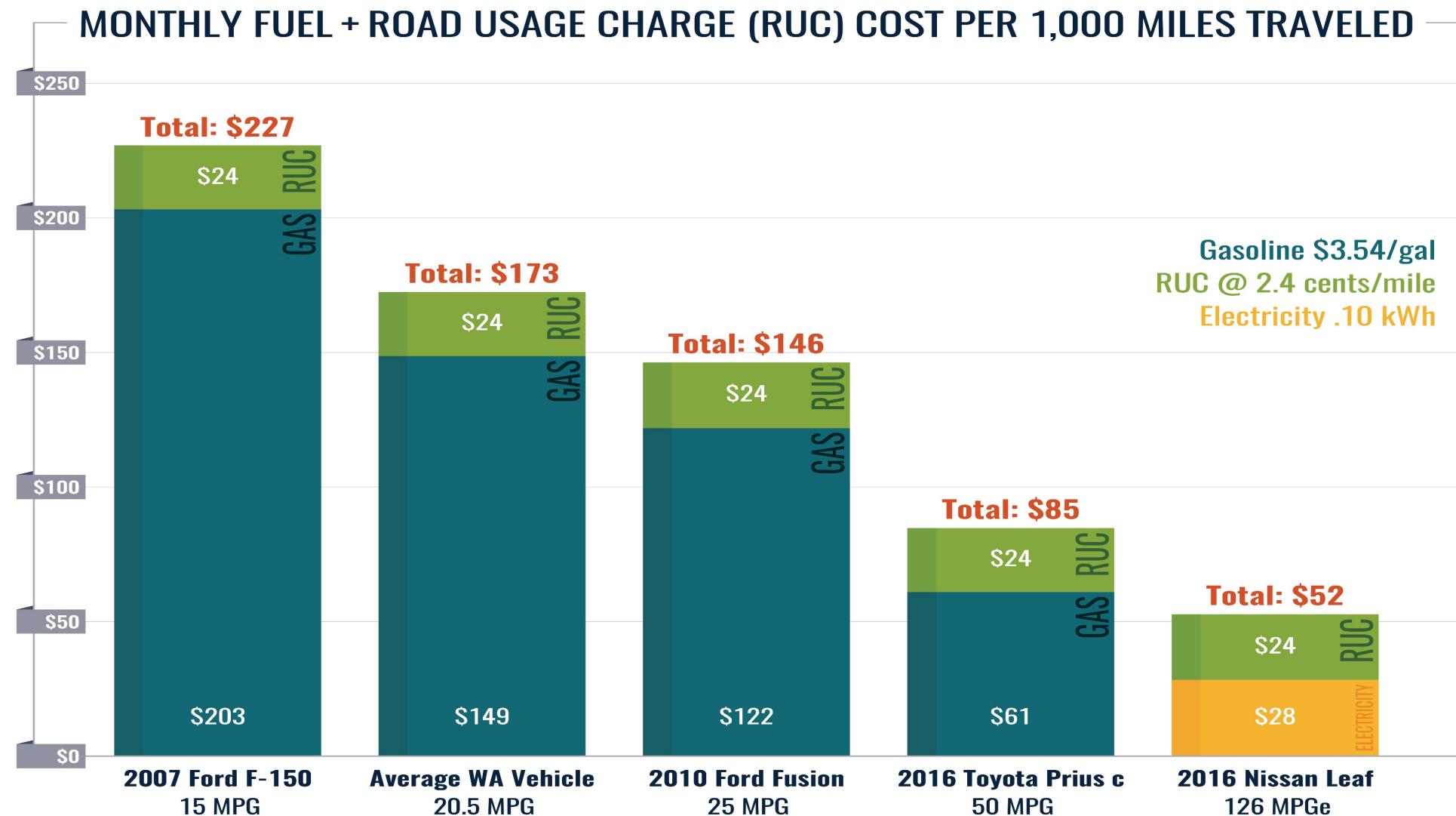
# CHOICES FOR ACHIEVING LONG-TERM REVENUE SUSTAINABILITY & INCREASING FAIRNESS

- ✓ Starting out small allows the RUC program to mature before scaling to bigger portions of the statewide vehicle fleet
- ✓ Starting small means choosing “who goes first”:
  - Electric vehicles
  - High-MPG vehicles
  - New vehicles by model year
  - State-owned vehicles
  - Volunteer vs. mandatory



# CHOICES FOR SUPPORTING ENVIRONMENTAL PRIORITIES & ENCOURAGING EV ADOPTION

- ✓ RUC maintains significant operating cost advantages of owning an EV
- ✓ Waive current \$225 EV flat fee for EVs paying RUC
- ✓ Offer an introductory discounted RUC rate or cap for EVs, phased out as EV adoption goals are achieved
- ✓ Waive current weight fees for EVs paying RUC



While RUC does result in drivers of fuel efficient vehicles paying a little more in taxes for transportation as compared to the gas tax, the overall cost advantage of owning a fuel efficient, hybrid, or EV remains significant.

For example, under RUC, owners of a Prius will pay \$142 dollars per month less than the Ford pickup truck driver.

# CHOICES FOR INCREASING TRANSPORTATION TAX EQUITY FOR LOW-INCOME DRIVERS

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- ✓ RUC reduces the disproportionate burden that the gas tax places on low income drivers – amplified each time the gas tax is increased
- ✓ Offer a discounted RUC rate for qualified low-income households
- ✓ Offer periodic payments for RUC
- ✓ Offer refunds to qualified low-income households who overpay in fuel taxes (cash or credits toward other taxes)





# RUC ENACTMENTS ARE OCCURRING ACROSS THE NATION



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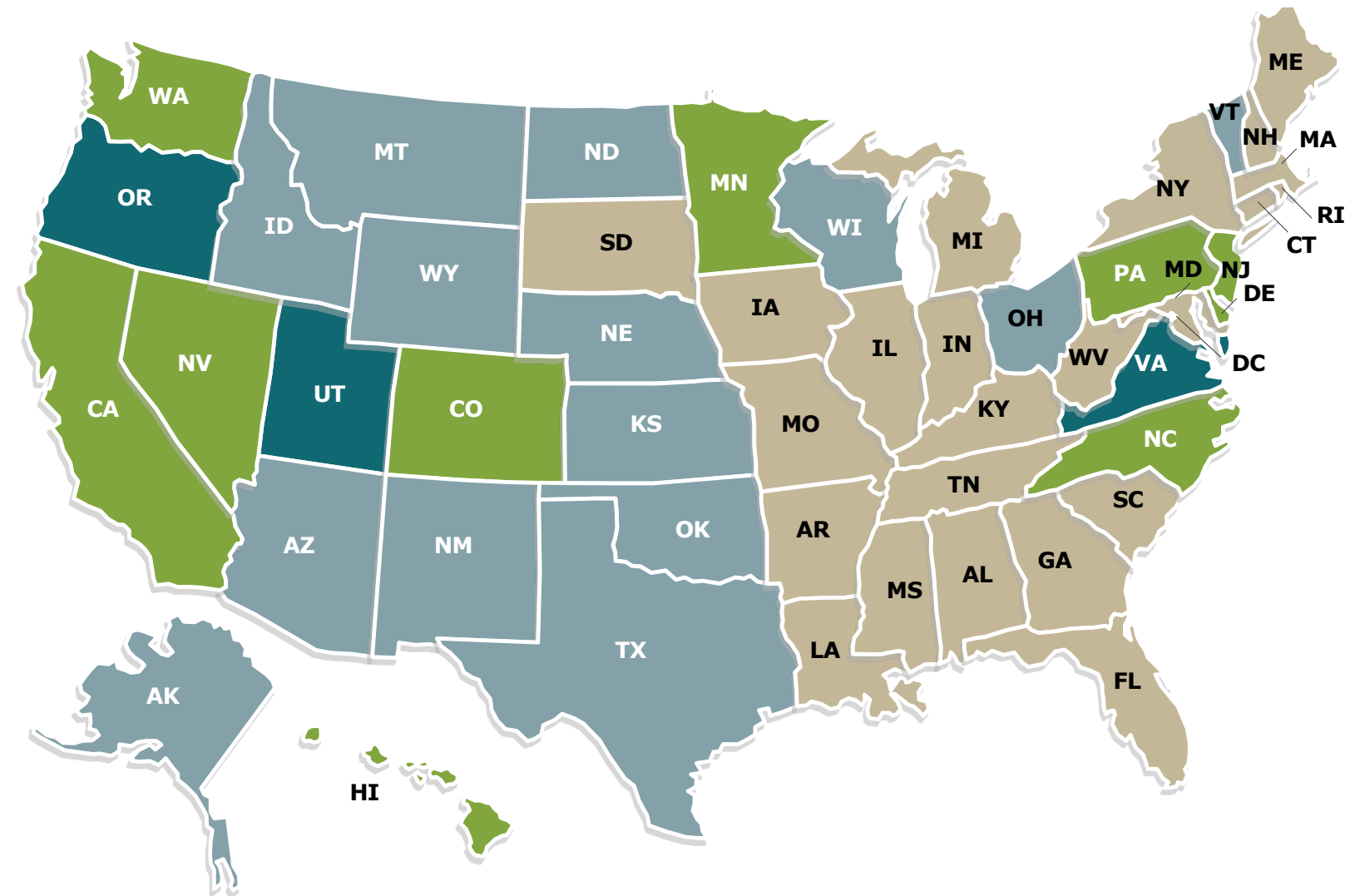
**Congress continues funding for state RUC pilots &  
program implementation and launches a national pilot**

# ROAD USAGE CHARGE ACTIVITIES NATIONALLY

**Oregon and Utah** have enacted RUC programs and are collecting per-mile charges from drivers.

**Virginia** enacted a program in 2020 which will launch this year.

**A large and growing list** of states are exploring road usage charging as a viable replacement to the fuel tax.



**3** Enacted programs **10** Pilots/demonstrations **14** Research

# CONGRESS CONTINUES ITS SUPPORT FOR RUC RESEARCH & PROGRAM IMPLEMENTATION

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**With the passage of the Bipartisan Infrastructure Law, Congress recognizes the growing consensus that RUC is a viable alternative to the fuel tax.**

- ▶ Extends the RUC grant program for states, increasing the federal share up to 80%, with funds eligible for program implementation
- ▶ Creates a national RUC Advisory Committee
- ▶ Directs USDOT and Treasury to collaborate on a nationwide RUC pilot test to replace the federal gas tax, building on state efforts





**For more information on Washington  
State's RUC Assessment visit:**

[www.waroadusagecharge.org](http://www.waroadusagecharge.org)

# CONTACT INFORMATION

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Consultant support provided by:

